

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) An active noise control system for use on a vehicle for reducing ~~an~~ undesirable noise emanating from the vehicle due to operation of the vehicle, said system comprising:

a noise detector for deriving an input signal representative of the undesirable noise;

an interfering wave signal generator for processing the input signal to produce an interfering wave signal for generating a noise canceling wave;

a limiting amplifier having a specified output signal amplitude threshold, for outputting amplified interfering wave signal having an amplitude equal to or less than the specified output signal amplitude threshold; and

an electrical acoustic converter for propagating the noise canceling wave;

wherein when an output of the limiting amplifier has a frequency of less than or equal to 30 Hz, and an amplitude less than or equal to the specified output signal amplitude threshold, the limiting amplifier has a constant gain; and

when the output of the limiting amplifier has a frequency less than or equal to 30 Hz and an amplitude greater than the specified output signal amplitude

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1. (Currently Amended) An active noise control system for use on a vehicle for reducing ~~an~~ undesirable noise emanating from the vehicle due to operation of the vehicle, said system comprising:

a noise detector for deriving an input signal representative of the undesirable noise;

an interfering wave signal generator for processing the input signal to produce an interfering wave signal for generating a noise canceling wave;

a limiting amplifier having a specified output signal amplitude threshold, for outputting amplified interfering wave signal having an amplitude equal to or less than the specified output signal amplitude threshold; and

an electrical acoustic converter for propagating the noise canceling wave;

wherein when an output of the limiting amplifier has a frequency of less than or equal to 30 Hz, and an amplitude less than or equal to the specified output signal amplitude threshold, the limiting amplifier has a constant gain; and

when the output of the limiting amplifier has a frequency less than or equal to 30 Hz and an amplitude greater than the specified output signal amplitude

threshold, the limiting amplifier has a gain which is adjusted in accordance with a size of an input signal.

2. (Withdrawn - Currently Amended) An active noise control system for use on a vehicle for reducing ~~an~~ undesirable noise emanating from the vehicle due to operation of the vehicle, said system comprising:

a noise detector for deriving an input signal representative of the undesirable noise;

a limiting amplifier having a specified output signal amplitude threshold, for outputting amplified input signal having an amplitude equal to or less than the specified output signal amplitude threshold;

an interfering wave signal generator for processing the amplified input signal to produce an interfering wave signal for generating a noise canceling wave; and

an electrical acoustic converter for propagating the noise canceling wave;

wherein when an output of the limiting amplifier has a frequency of less than or equal to 30 Hz, and an amplitude less than or equal to the specified output signal amplitude threshold, the limiting amplifier has a constant gain; and

when the output of the limiting amplifier has a frequency less than or equal to 30 Hz and an amplitude greater than the specified output signal amplitude

threshold, the limiting amplifier has a gain which is adjusted in accordance with a size of an input signal.

3. (Withdrawn - Currently Amended) An active noise control system for use on a vehicle for reducing ~~an~~ undesirable noise emanating from the vehicle due to operation of the vehicle, said system comprising:

a noise detector for deriving an input signal representative of the undesirable noise;

a limiter having a specified output signal threshold, for outputting the input signal having an amplitude equal to or less than the specified output signal threshold;

an interfering wave signal generator for processing the input signal to produce an interfering wave signal for generating a noise canceling wave;

an amplifier for outputting amplified interfering wave signal; and

an electrical acoustic converter for propagating the noise canceling wave;

wherein when an output of the limiting amplifier has a frequency of less than or equal to 30 Hz, and an amplitude less than or equal to the specified output signal amplitude threshold, the limiting amplifier has a constant gain; and

when the output of the limiting amplifier has a frequency less than or equal to 30 Hz and an amplitude greater than the specified output signal amplitude threshold, the limiting amplifier has a gain which is adjusted in accordance with a

size of an input signal.

4. (Withdrawn - Currently Amended) An active noise control system for use on a vehicle for reducing an undesirable noise emanating from the vehicle due to operation of the vehicle, said system comprising:

a noise detector for deriving an input signal representative of the undesirable noise;

an amplifier for outputting amplified input signal;

an interfering wave signal generator for processing the amplified input signal to produce an interfering wave signal for generating a noise canceling wave;

a limiter having a specified output signal threshold, for outputting the interfering wave signal having an amplitude equal to or less than the specified output signal threshold; and

an electrical acoustic converter for propagating the noise canceling wave;

wherein when an output of the limiting amplifier has a frequency of less than or equal to 30 Hz, and an amplitude less than or equal to the specified output signal amplitude threshold, the limiting amplifier has a constant gain; and

when the output of the limiting amplifier has a frequency less than or equal to 30 Hz and an amplitude greater than the specified output signal amplitude threshold, the limiting amplifier has a gain which is adjusted in accordance with a

size of an input signal.

5. (Withdrawn - Currently Amended) An active noise control system for use on a vehicle for reducing an undesirable noise emanating from the vehicle due to operation of the vehicle, said system comprising:

a noise detector for deriving an input signal representative of the undesirable noise;

a digital filter for processing A/D converted input signal to produce an interfering wave signal for generating a noise canceling wave;

a limiting amplifier having a specified output signal amplitude threshold, for outputting D/A converted, amplified interfering wave signal having an amplitude equal to or less than the specified output signal amplitude threshold; and

an electrical acoustic converter for propagating the noise canceling wave;

wherein when an output of the limiting amplifier has a frequency of less than or equal to 30 Hz, and an amplitude less than or equal to the specified output signal amplitude threshold, the limiting amplifier has a constant gain; and

when the output of the limiting amplifier has a frequency less than or equal to 30 Hz and an amplitude greater than the specified output signal amplitude threshold, the limiting amplifier has a gain which is adjusted in accordance with a size of an input signal.

6. (New) An active noise control system for use on a vehicle to reduce undesirable noise emanating from the vehicle due to operation of the vehicle, said system comprising:

a noise detector for deriving an input signal representative of the undesirable noise;

an interfering wave signal generator for producing an interfering wave signal for generating a noise canceling wave;

a limiting amplifier having a specified output signal amplitude threshold, for outputting an amplified interfering wave signal having an amplitude less than or equal to the specified output signal amplitude threshold; and

an electrical acoustic converter for propagating the noise canceling wave;

wherein when an output of the limiting amplifier has a frequency of less than or equal to 30 Hz, and an amplitude less than or equal to the specified output signal amplitude threshold, the limiting amplifier has a constant gain; and

when the output of the limiting amplifier has a frequency less than or equal to 30 Hz and an amplitude greater than the specified output signal amplitude threshold, the limiting amplifier has a gain which is adjusted in accordance with a size of an input signal.